Engineering Technology

Associate of Science in Engineering Technology - Mechatronics

The Associate of Science in Engineering Technology - Mechatronics Option is a transfer degree with specific mathematics, science, computer science and engineering courses needed to facilitate transfer. This degree also prepares students for immediate entry into the workforce. This academic guide is based on the 2023-2024 Missouri State University-West Plains Catalog. The time to complete the degree will vary, depending on remediation, summer enrollment, number of classes taken per semester, etc.

Degree Requirements	
Written and Oral Communications	Credit Hours
ENG 110 Writing I	3
Select three (3) credit hours	
ENG 210 Writing II: Academic Writing or	
ENG 221 Writing II: Writing for the Professions	3
COM 115 Fundamentals of Public Speaking	
Natural Sciences	Credit Hours
CHM 160 General Chemistry I	4
CHM 161 General Chemistry I Laboratory	1
Social and Behavioral Science	Credit Hours
Economics: Select three (3) credit hours	
ECO 155 Principles of Macroeconomics	3
ECO 165 Principles of Microeconomics	5
Civics: Select three (3) credit hours	
HST 121 Survey of US History to 1877	
HST 122 US History Since 1877	3
PLS 101 American Democracy and Citizenship	
Institutional Requirements	Credit Hours
CIS 101 Computers for Learning	3
IDS 110 Student Success	1
Engineering Technology Requirements	Credit Hours
EGR 100 Careers in Engineering and Computing	1
EGR 110 Introduction to Engineering Design	3
EGR 120 Introduction to Computer Aided Design	2
EGR 297 Engineering Capstone	1
CSC 125 Introduction to C++ Programming	4
Mechatronics Requirements	Credit Hours
CIS 201 Computer Applications in Business	3
MTH 261 Analytic Geometry and Calculus I	5
MIM 240 Project Management	3
TEC 100 Introduction to AC and DC Electricity	2
TEC 180 Fundamentals of Mechatronics	2
TEC 240 PLCs & Sensors	2
TEC 245 Mechanical Systems	2
TEC 248 Fluid Power	2
TEC 275 Automated Systems	2
Electives: Select 5 credit hours (Must be approved by Engineering Department)	5
AS in Engineering Technology-Mechatronics Option Total	60

Degree Notes:

• ECO 155 is recommended for the Mechatronics option.

Electives must be approved by the department.

• Students should confirm the transferability of courses with their transfer university before completing courses at MSU-WP.

	Recommended Two-Year	Fidli
	Course #	Credit Hours
(Fall)	CIS 101	2
	FGR 100	1
	EGR 110	3
	ENG 110	3
n 1	IDS 110	1
err	TEC 180	2
	TEC 245	2
	Total	15
	Complete MTH prerequite in place of ENG	110, if needed.
	Course #	Credit Hours
	CIS 201	3
(B)	COM 115/ENG 210/ENG 221	3
rin	EGR 120	2
(Sp	TEC 248	2
n 2	Electives	5
ern		
	Total	15
	Milestone: Complete MTH prerequisi place of Civics.	tes, if needed, in
	Course #	Credit Hours
	Course #	Credit Hours
	Course # Civics	Credit Hours 3 4
Ē	Course # Civics CHM 160 CHM 161	Credit Hours 3 4
(Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165	Credit Hours 3 4 1 3
n 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240	Credit Hours 3 4 1 3 3
erm 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100	Credit Hours 3 4 1 3 3 2
Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total	Credit Hours 3 4 1 3 3 2 16
Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total Milestone: Complete MTH prerequsit for admission to 4 year university.	Credit Hours 3 4 1 3 3 2 16 e, if needed. Apply
Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total Milestone: Complete MTH prerequsite for admission to 4 year university.	Credit Hours 3 4 1 3 2 16 e, if needed. Apply
Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total Milestone: Complete MTH prerequsite for admission to 4 year university.	Credit Hours 3 4 1 3 2 16 e, if needed. Apply Credit Hours
g) Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total Milestone: Complete MTH prerequsite for admission to 4 year university.	Credit Hours 3 4 1 3 3 2 16 e, if needed. Apply Credit Hours 4
oring) Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total Milestone: Complete MTH prerequisity for admission to 4 year university.	Credit Hours 3 4 1 3 2 16 e, if needed. Apply Credit Hours 4 1
(Spring) Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total Milestone: Complete MTH prerequsit for admission to 4 year university.	Credit Hours 3 4 1 3 2 16 e, if needed. Apply Credit Hours 4 1 5
n 4 (Spring) Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total Milestone: Complete MTH prerequsit for admission to 4 year university.	Credit Hours 3 4 1 3 2 16 e, if needed. Apply Credit Hours 4 1 5 2
erm 4 (Spring) Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total Milestone: Complete MTH prerequsit for admission to 4 year university. Course # CSC 125 EGR 297 MTH 261 TEC 240 TEC 275	Credit Hours 3 4 1 3 2 16 e, if needed. Apply Credit Hours 4 1 5 2 2 2
Term 4 (Spring) Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total Milestone: Complete MTH prerequsit for admission to 4 year university.	Credit Hours 3 4 1 3 2 16 e, if needed. Apply Credit Hours 4 1 5 2 2 2
Term 4 (Spring) Term 3 (Fall)	Course # Civics CHM 160 CHM 161 ECO 155/ECO 165 MTM 240 TEC 100 Total Milestone: Complete MTH prerequisite for admission to 4 year university. Course # CSC 125 EGR 297 MTH 261 TEC 240 TEC 275 Total	Credit Hours 3 4 1 3 2 16 e, if needed. Apply Credit Hours 4 1 5 2 2 2 14

Milestone Notes:

• Milestones are a major step in the completion of the degree. Each milestone must be met in order to

advance to the next stage of education.Milestone courses should be completed in the

designated semester.

• All milestone courses must be completed with a C or higher.

• Students are encouraged to apply for graduation early in their last semester.

For More Information, Contact

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EO/AA/M/F/Veterans/Disability/Sexual Orientation/Gender Identity

Academic Map 2023-2024